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10/577,759

04/28/2006

Matthew David Harris

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS  
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EXAMINER

MOYER, DALE S

ART UNIT

PAPER NUMBER

4117

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |                                      |  |
|------------------------------|--------------------------------------|--------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/577,759 | <b>Applicant(s)</b><br>HARRIS ET AL. |  |
|                              | <b>Examiner</b><br>Dale Shawn Moyer  | <b>Art Unit</b><br>4117              |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### ***Specification***

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Applicant is required to submit a substitute specification with the appropriate headings as highlighted above.

***Claim Objections***

1. Claims 1, 7, and 8 are objected to because of the following informalities: The dash (-) character appears in each of these claims. However, the dash character does not add to any limitation within the claim. Appropriate action is required.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding claims 1-8:

The term "inherited parameters" is not described in the specification in such a way as to enable one skilled in the art to which it pertains, or which it is most nearly connected to make and/or use the invention. That is, there is no indication as to what is included in an inherited parameter nor is there an indication as to what is not included in an inherited parameter.

Regarding claims 1, 2, 7, and 8:

The term 'constant' is not described in the specification in such a way as to enable one skilled in the art to which it pertains, or which it is most nearly connected to make and/or use the invention. As best understood by the

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Examiner, and for the purpose of examination, the term 'constant' is understood herein to mean "ever present."

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. That is, claim 4 recites the limitation "the random combination" in the first limitation. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, 7, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Loyall et al. (United States Application Publication 2004/0075677).

Regarding claim 1:

Loyall et al. disclose an interactive system (element 100), comprising: an interacting means (elements 105, 110; paragraphs 90-98); a control means (element 115) for controlling the interacting means, the control means being

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responsive to control parameters (elements 410 and 420; paragraphs 117, 121, and 127) the control parameters comprising: an inherited parameter (“speech data;” paragraphs 14-37) that is constant (paragraphs 117-122); an interaction parameter (“ABT;” element 410), the interaction parameter influenced by an external factor, the influence of the external factor on the interaction parameter dependent on the inherited parameter (paragraphs 117-118, 148).

The Examiner notes that while Loyall et al do not explicitly disclose that the speech data is constant, they do disclose that the speech data is stored in the behavior library and that the behavior library is a set of behaviors that is built by the author of the interactive character prior to its execution (paragraphs 117-122) which is indicative of being constant as best understood by one skilled in the art.

Regarding claim 2:

Loyall et al. disclose the interactive system as recited above,

Loyall et al. do not disclose that the inherited parameter is constant after initialisation.

The Examiner takes Official Notice that electronic devices often include a button that may be activated by a user in order to cause the software/firmware on the electronic device to revert to its default state. It contemplated that parameters used to revert the software/firmware back to its default state may be stored within a memory of the electronic device. Therefore, such a parameter is constant.

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It would be obvious to a person of ordinary skill in the art at the time of invention that the interactive system taught by Loyall et al. may be combined with the button described above. For example, the person of ordinary skill in the art would be motivated to include such a button to allow a user to reset the interactive device if the interactive device were to malfunction.

Regarding claim 7:

Loyall et al. disclose an interactive system (element 100), comprising: an interacting means (elements 105, 110; paragraphs 90-98); a control means (element 115) for controlling the interacting means, the control means being responsive to control parameters (elements 410 and 420; paragraphs 117, 121, and 127) the control parameters comprising: an inherited parameter ("speech data;" paragraphs 14-37) that is constant (paragraphs 117-122); an interaction parameter ("ABT;" element 410), the interaction parameter influenced by an external factor, the influence of the external factor on the interaction parameter dependent on the inherited parameter (paragraphs 117-118, 148).

The Examiner notes that while Loyall et al do not explicitly disclose that the speech data is constant, they do disclose that the speech data is stored in the behavior library and that the behavior library is a set of behaviors that is built by the author of the interactive character prior to its execution (paragraph 117-122) which is indicative of being constant as best understood by one skilled in the art.

Regarding claim 8:

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Loyall et al. disclose a robot device, comprising: an interacting means (elements 105, 110; paragraphs 90-98); a control means (element 115) for controlling the interacting means, the control means being responsive to control parameters (elements 410 and 420; paragraphs 117, 121, and 127) the control parameters comprising: an inherited parameter ("speech data;" paragraphs 14-37) that is constant (paragraphs 117-122); an interaction parameter ("ABT;" element 410), the interaction parameter influenced by an external factor, the influence of the external factor on the interaction parameter dependent on the inherited parameter (paragraphs 117-118, 148).

The Examiner notes that while Loyall et al do not explicitly disclose that the speech data is constant, they do disclose that the speech data is stored in the behavior library and that the behavior library is a set of behaviors that is built by the author of the interactive character prior to its execution (paragraph 117-122) which is indicative of being constant as best understood by one skilled in the art.

7. Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Loyall et al. as applied to claim 2 above, and further in view of Sadakuni (United States Patent Number 6,446,056).

Regarding claim 3:

Loyall et al. disclose the interactive system as recited above,

Loyall et al. do not disclose that the initialisation of the inherited parameter is based on an inherited parameter of one or more further interactive systems.



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Sadakuni teaches an interactive artificial intelligence system used to control the behavior of a device based upon past experience, pre-programmed data, and sensed parameters. Sadakuni also teaches that the interactive artificial intelligence system may be connected to an external system and that data and programs used in the system including long-term memory can be saved or installed on a separable medium. Further, these data may be transferred to another device or pooled from multiple devices and transferred to a single device (column 16, line 58 through column 17, line 21).

It would have been obvious to a person of ordinary skill in the art at the time of invention to combine the teachings of Loyall et al. and Sadakuni. For example, the person of ordinary skill in the art may be motivated to make such a combination in order to reduce the time needed to train the interactive system. That is, the person of ordinary skill in the art may use one or more interactive systems to learn, and then may pass the data collected by the one or more systems to the aforementioned interactive system.

Regarding claim 4:

Loyall et al. disclose the interactive system as recited above.

Loyall et al. do not disclose that the initialisation of the inherited parameter includes a random combination and that the random combination includes a merging step in which the inherited parameters of two or more further interactive systems are merged.

Sadakuni teaches the interactive artificial intelligence system as recited above. Additionally, Sadakuni teaches that the interactive artificial intelligence system may include genetic algorithms, genetic programming, or other evolutionary computing algorithms (column 17, lines 40-59). It is well known that genetic algorithms may use various selection processes to determine which data will be inherited (merged) from the parents to a child, that these genetic algorithms may incorporate random mutations.

It would have been obvious to a person of ordinary skill in the art at the time of invention to combine the teachings of Loyall et al. and Sadakuni. For example, the person of ordinary skill in the art may be motivated to combine the interactive system of Loyall et al. with the artificial intelligence system of Sadakuni for testing purposes. That is, the person could use the genetic algorithms to create various phenotypes, test each phenotype, and then combine the desired characteristics from each phenotype to create a superior system.

Regarding claim 5:

Loyall et al. disclose the interactive system as recited above.

Loyall et al. do not disclose that the initialisation of the inherited parameter is based on a random combination from inherited parameters of two or more further interactive systems.

Sadakuni teaches the interactive artificial intelligence system as recited above. Additionally, Sadakuni teaches that the interactive artificial intelligence system may include genetic algorithms, genetic programming, or other

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evolutionary computing algorithms (column 17, lines 40-59). It is well known that genetic algorithms may use various selection processes to determine which data will be inherited from parents to a child, that these genetic algorithms may incorporate random mutations.

It would have been obvious to a person of ordinary skill in the art at the time of invention to combine the teachings of Loyall et al. and Sadakuni. For example, the person of ordinary skill in the art may be motivated to combine the interactive system of Loyall et al. with the artificial intelligence system of Sadakuni for the purpose of testing and/or research and development. That is, the person could use genetic algorithms to create various system phenotypes, test each system phenotype, and then combine the desired characteristics from each of the system phenotypes to create a superior interactive system.

Regarding claim 6:

Loyall et al. disclose the interactive system as recited above.

Loyall et al. do not disclose that initialisation is based on a random combination from inherited parameters of two or more further interactive systems.

Sadakuni teaches the interactive artificial intelligence system as recited above. Additionally, Sadakuni teaches that the interactive artificial intelligence system may include genetic algorithms, genetic programming, or other evolutionary computing algorithms (column 17, lines 40-59). It is well known that genetic algorithms may use various selection processes to determine which data

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will be inherited from parents to a child, and that these genetic algorithms may incorporate random mutations.

It would have been obvious to a person of ordinary skill in the art at the time of invention to combine the teachings of Loyall et al. and Sadakuni. For example, the person of ordinary skill in the art may be motivated to combine the interactive system of Loyall et al. with the artificial intelligence system of Sadakuni for the purpose of testing and/or research and development. That is, the person could use genetic algorithms to create various system phenotypes, test each system phenotype, and then combine the desired characteristics from each of the system phenotypes to create a superior interactive system.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dale Shawn Moyer whose telephone number is (571)270-7821. The examiner can normally be reached on Monday through Thursday from 10AM to 4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Naeem U. Haq can be reached on (571)272-6758. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dale Shawn Moyer/  
Examiner, Art Unit 4117

/CHARLES A. FOX/  
Primary Examiner, Art Unit 3652